

Events In Geological History

Millions of Years Ago

4500 +++	Planet formed. Hadean eon begins.
4000	By now, earth has a relatively stable crust with oceans and primitive atmosphere.
3800	Age of some of oldest rocks on earth's surface today. Hadean eon ends; Archean eon begins.
3400	Primitive single cell life appears.
2500	Archean eon ends; Proterozoic eon begins. Algae have evolved – photosynthesis begins.
1800	Oldest known rock in North Carolina.
1600	Sediments deposited in a very ancient ocean off the North American continent. (Later, they were metamorphosed and formed the Blue Ridge Mountains.)
800	Layers of sediment accumulate in the Iapetus Sea. (Sandstones and other sedimentary rocks formed here are the "parent rocks" to those found in the Sauratown Mountains today.)
544	Proterozoic eon ends; Phanerozoic eon begins. Cambrian period begins – First animals with shells appear in oceans.
505	Ordovician period begins – Continental collision of North America and Africa. This is the beginning of the mountain-building process. Layers of sandstone are folded and metamorphosed.
440	Silurian period begins – Uplift continues along with some erosion.
410	Devonian period begins – Plants are thriving on land above the sea; first land animals appear; insects are common.
408	Due to movement of the earth's crust as North America and Africa move together, the Iapetus Sea closes and disappears.
360	Mississippian period – Time of uplift and erosion.
325	Pennsylvanian period – Time of uplift and erosion.
300	Reptiles appear.
286	Permian period begins – Final collision of North America and Africa. Thrust faulting occurs in western North Carolina along with deformation of rocks in the Piedmont.
248	Triassic period begins – Formation of Atlantic Ocean, as North America and Africa drift apart. Weathering and erosion of Piedmont and mountains.